

REMARKS

I. Status of the Claims

Claims 1-5 and 7-13 remain pending in this application and have been rejected. Claim 6 has been cancelled without prejudice or disclaimer. Claim 1 has been amended. Support for the amendment to claim 1 can be found, for example at paragraphs [0010], [0011], [0015], [0033], and [0035] of the specification. Accordingly, no new matter has been introduced.

II. Amendments to the Specification

The specification has been amended to correct typographical errors in the table on page 36. The column of values under the heading "Viscosity" in the table titled "Physical properties of polyisocyanate" has been amended to correct an error in the units used for those values. The "Viscosity" heading indicates that the values are in **mPa·s/25 °C** but the values in the table were given in units of **Pa·s/25 °C**. Accordingly, the values in the column deviate from the correct values by a factor of 10^3 . The amendments to the specification correct these errors by multiplying each value in the column by 1000 to convert the units of Pa·s/25 °C into units of mPa·s/25 °C.

The specification as a whole illustrates that the correct ranges should be within the range of "100,000- 2,000,000 mPa·s/25 °C." See, e.g., *Specification* at para [0009]. The amendments to the specification change the table on page 36 to comport with this range.

Since the amendments to the specification only correct typographical errors, no new matter has been introduced.

III. Rejection under 35 U.S.C. 112, Second Paragraph

The Examiner has rejected claim 6 under 35 U.S.C. 112, second paragraph because the Examiner contends that the claim is indefinite. *Final Office Action* at 2. The Examiner bases this rejection on the Examiner's contention that claim 6 "fails to be further limiting" over claim 1. *Id.*

Applicants have cancelled claim 6 for reasons unrelated to the Examiner's rejection. Applicants do not acquiesce in the Examiner's reasons for rejecting claim 6. However, Applicants submit that the Examiner's rejection of claim 6 is now moot because claim 6 has been cancelled.

IV. Rejections under 35 U.S.C. 103

The Examiner has rejected each of claims 1-5 and 7-13 under 35 U.S.C. 103 over *Asahina* in view of *Slack* or *Bernard*. *Final Office Action* at 2-5. The Examiner contends that *Asahina* discloses the subject matter of claim 1 in this application, *id.* at 2-3, except for (1) the ratio of aliphatic diisocyanate to alicyclic diisocyanate and (2) the claimed glass transition temperature. *Id.* at 3, section 4. The Examiner contends that each of these two deficiencies of *Asahina* would have been filled in by some combination of the *Slack* and/or *Bernard* disclosures. *Id.*

Applicants respectfully submit that an ordinarily skilled artisan would not have modified *Asahina* in view of *Slack* and/or *Bernard* to arrive at the claims in this application. Moreover, combining *Asahina* with *Slack* and/or *Bernard* could not possibly provide the subject matter of the claims in this application. Even if an ordinary artisan would have modified *Asahina* with particular aspects of *Slack* and/or *Bernard*, no combination could have led to the polyol component concentration element required by the claims in this application. *See Amendments to the Claims, supra.*

The factors set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966), should be applied to establish a background for assessing obviousness under 35 U.S.C. § 103.

These factors are as follows:

1. Determining the scope and contents of the prior art;
2. Ascertaining the differences between the prior art and the claims at issue;
3. Resolving the level of ordinary skill in the pertinent art; and
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

See *M.P.E.P.* § 2141. The Supreme Court has recently affirmed that the *Graham* test should guide an inquiry under § 103 and should be used to determine the obviousness of each claim individually. See *KSR Intern. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007). The Court in *KSR* also reiterated that “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinnings to support the legal conclusion of obviousness.” *Id.* at 1741 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). When considering the *differences* under *Graham*, “all words in a claim must be considered in judging the patentability of a claim against the prior art.” *M.P.E.P.* § 2143.03 (citing *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970)).

No Reasonable Expectation to Succeed in Combining References

The Examiner contends that combining *Asahina* with either *Slack* and/or *Bernard* would incorporate the “ratio of aliphatic diisocyanate to alicyclic diisocyanate” and “glass transitions temperature range” elements of either *Slack* and/or *Bernard* into the composition disclosed in *Asahina*. Applicants respectfully submit that an ordinary artisan would have neither chosen these particular aspects of *Asahina* for modification nor selected particularly parts of *Slack* and/or *Bernard* for guiding that modification.

Neither *Slack* nor *Bernard* disclose particular combinations of diisocyanates. By contrast, the claims in this application require particular ratios of aliphatic and alicyclic diisocyanates. Applicants submit that *Slack* and *Bernard* disclose different kinds of polymers than those claimed in this application.

Notably, *Slack* does not disclose or suggest a specific combination of a hexamethylene diisocyanate with another diisocyanate. Additionally, *Slack* uses a *monoalcohol* instead of a *polyol*. In view of these differences, an ordinary artisan would not have expected to succeed in using *Slack's* disclosure to modify *Asahina's* different technology. Like *Slack*, *Bernard* is also not analogous art. *Bernard* discloses (a) mixtures of premade *homopolymers* **not** (b) polymerizing mixtures of monomers to make polymers. The claimed subject matter requires polymerizing mixtures of monomers, generating a kind of polymer that is entirely different from *Bernard's*. Accordingly, an ordinary artisan would not have expected to succeed in modifying *Asahina's* disclosure with *Bernard's*.

No Combination of Cited References Provides the Polyol Concentration

With entry of the amendments in this paper, all of the claims require a polyol component concentration of 3-30 mass%. Claim 1 is the only independent claim in this application and recites ". . . the polyol component concentration in the polyisocyanate composition is 3-30 mass%" *Amendments to the Claims, supra*.

In contrast to the claims in this application, *Asahina* does not disclose a polyisocyanate composition having a polyol concentration of 3-30 mass%. The Examiner does not allege that *Asahina* discloses a polyisocyanate composition having a polyol concentration of 3-30 mass%. None of the examples in *Asahina* show a

polyisocyanate composition having a polyol concentration of 3-30 mass%. Accordingly, the polyol concentration element of claim 1 should be considered a **difference** between the claims in this application and the *Asahina* disclosure. *M.P.E.P.* § 2141.

When evaluating the patentability of each claim as a whole, the Examiner must consider all of the differences. See *M.P.E.P.* § 2143.03 (citing *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970)). Here, the Examiner has overlooked at least the difference between the polyol concentration in the claimed compositions and those disclosed in *Asahina*. Accordingly, Applicants respectfully submit that the rejection of claims 1-5 and 7-13 should be withdrawn.

Even if an ordinary artisan would have modified *Asahina* exactly as the Examiner suggests, that hypothetical composition still would not have met the polyol concentration element of claim 1. Rather, *Asahina* modified by *Slack* and/or *Bernard* could only have provided a composition with *polyol concentrations exceeding 30 mass%* because *Asahina* serves as the primary reference and discloses only polyol concentrations greater than 30 mass%. By contrast the compositions claimed in this application require *3-30 mass% of polyol*.

Applicants respectfully request that the Examiner withdraw the rejection of claims 1-5 and 7-13 under 35 U.S.C. 103. The Examiner's rejection of these claims fails to account for the "polyol component concentration" element of the claims. This element must be considered. *M.P.E.P.* § 2143.03. The *Asahina* reference discloses only polyol concentrations *exceeding 30 mass%*. But the claims in this application require polyol concentrations of 3-30 mass%. The Examiner has not provided any reason for why modifying *Asahina*'s polyol concentration would have been obvious when this

application was filed. The Examiner must provide a reason for why each rejected claim would have been obvious despite all of the differences between it and the cited references. See *In re Kahn*, *supra*. Here, the Examiner has not provided any reasons accounting for the polyol component concentration element of the claims in this application. *Id.* Accordingly, the rejection of claims 1-5 and 7-13 under 35 U.S.C. 103 should be withdrawn.

V. Conclusions

Applicants have cancelled claim 6 without prejudice or disclaimer, rendering the rejection of claim 6 under 35 U.S.C. 112, second paragraph moot.

For the reasons discussed in detail above, Applicants respectfully submit that the Office has not met the burden of showing claims 1-5 and 7-13 obvious because the Office has not accounted for the polyol component concentration element that is required by these claims but has not been identified in the cited art.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

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